

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A device for sheet material corrugation comprising:
a removable vacuum chamber including ~~the~~ a transformable mandrel ~~containing~~ the
including a plurality of plane elements pivotally pivotally connected in-between with the use
~~of gas-proof fabric, with each other, a sheet of gas-proof material, and a sealing cord;~~
~~the means for performing a preliminary mandrel transformation including the~~
~~removable vacuum chamber with the sealing roller and the vacuumization system, and;~~
~~the means for performing a final mandrel transformation including the a first traverse~~
with ~~the~~ a first drive providing it's a plane-parallel travel for the first traverse, is
characterized by that it includes the
a mechanism for putting the transformable mandrel into the an initial plane state, said
mechanism including a lower slab and an upper slab containing two parallel to each other and
slabs located one over another on both sides either side of the transformable mandrel and the
a drive providing their reciprocal travel,
wherein said means for performing said preliminary mandrel transformation include
two systems of pusher rows installed correspondingly on the lower and upper slabs,
wherein said first traverse and said first drive are installed on the lower slab.

Claim 2 (Canceled)

Claim 3 (Currently Amended): A device according to claim 1, wherein 2-is
characterized by that it includes the pushers of said two systems of pusher rows have with the
individual drives providing their seesaw travel of said pushers, wherein whereof the
perforations in the lower and upper slabs provide the consecutive interaction of the pushers

with the transformable mandrel on its ~~either side~~ two sides at locations of mandrel plane elements pivot connections at ~~the intersection~~ intersections of saw-tooth and zigzag bending lines of the transformation mandrel.

Claim 4 (Currently Amended): A device according to claim 1, wherein 2 is characterized by that the rows of the lower pushers on the lower slab are placed so that they can as to come into contact with the transformable mandrel during said preliminary mandrel transformation along the protrusions zigzag lines, while the rows of the upper pushers on the upper slab are placed so as to come into contact during said preliminary mandrel transformation with the transformable mandrel [(-)] along the recesses zigzag lines.

Claim 5 (Currently Amended): A device according to claim 1, wherein is characterized by that it includes the means for performing said final mandrel transformation containing the include a second traverse located such that said first and second traverses are located on opposite sides of on the lower slab on the other side of the mandrel parallel to each other the first one and the , said means for performing said final mandrel transformation further comprising a second drive providing it's a plane-parallel travel for the second traverse.

Claim 6 (Currently Amended): A device according to claim 3, wherein the pushers are configured to interact with the transformation mandrel at locations of a pivoted connection of the plane elements of the transformation mandrel at intersections of bending lines of the transformation mandrel upon completion of said preliminary transformation, wherein a is characterized by that the distance L between adjacent intersections of projections

of bending lines of the transformation mandrel the pushers rows in the a direction of saw-tooth bending lines of the mandrel is equal to

$$L = \sqrt{L_r^2 - h^2} ,$$

where L_r is the step of a distance between adjacent zigzag lines of bending on said transformation mandrel prior to said preliminary transformation in a direction of saw-tooth bending lines on the corrugated article development;

h is the a corrugated article relief height after the preliminary transformation.

Claim 7 (Currently Amended): A device according to claim 6, wherein 5 is characterized by that the corrugated article relief height h after the preliminary transformation is taken minimal so that as to provide further reciprocal joint transformation of the shaping transformation mandrel with the blank by means of force application from the side of traverses.

Claim 8 (New): A device according to claim 1, wherein said removable vacuum chamber includes two gas-proof sheets connected to each other by said sealing cord along edges of said two gas-proof sheets so as to provide a seal between said two gas-proof sheets, and wherein said transformable mandrel is enclosed between said two gas-proof sheets.

Claim 9 (New): A device according to claim 1, wherein said removable vacuum chamber is configured to receive an article to be corrugated and maintain a vacuum with said article inside said removable vacuum chamber during said preliminary and final mandrel transformations.